DOCUMENT RESUME

ED 413 529 CE 075 274

TITLE	Vocational Education and Training Reform in the Czech Republic.
INSTITUTION	European Training Foundation, Turin (Italy).
ISBN	ISBN-92-9157-131-8
PUB DATE	1997-00-00
NOTE	35p.
PUB TYPE	Reports - Descriptive (141)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	Access to Education; Career Counseling; Career Guidance; Continuing Education; *Educational Change; *Educational Development; Educational Finance; Educational Legislation; Educational Policy; Equal Opportunities (Jobs); Foreign Countries; *Free Enterprise System; Job Skills; *Job Training; National Standards; Needs Assessment; Postsecondary Education; School Business Relationship; Secondary Education; Sex Fairness; Skill Analysis; Staff Development; *Vocational Education
IDENTIFIERS	*Czech Republic

ABSTRACT

This report on vocational education and training (VET) in the Czech Republic consists of a condensed description of the present situation in VET and analysis of the main challenges facing VET reform in the country. Chapter 1 offers basic data on the Czech Republic. Chapter 2 describes main features of the VET system, strategic objectives for VET, and legislative framework. Developments in these specific areas are highlighted: administrative structure and level of decentralization; finance; adaptation of training to change; identification of skill needs; quality standards and qualifications; promotion of continuing vocational training; social partners; involvement of enterprises in VET; equal opportunities; access to training; and vocational guidance and counseling. Chapter 3 provides an overview of international assistance, including the European Union's Phare program for VET and the Leonardo program. Chapter 4 identifies current challenges in three areas: skill needs analysis, institutional arrangements, and qualifications and training methods. Chapter 5 outlines possible priorities for future assistance to sustain and further the reform process. Appendixes include key indicators (access and participation, finance, labor market trends); diagram of VET system; legislative framework; responsible bodies; and international assistance sources. (YLB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 413 529

European Training Foundation

Vocational Education and Training

Reform in the

CZECH REPUBLIC

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

J. Anstey

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

CE075274

BEST COPY AVAILABLE

European Training Foundation

Villa Gualino, Viale Settimio Severo, 65, I-10133 Torino
Tel: (39)11 630 22 22 / Fax: (39)11 630 22 00 / email: info@etf.it
Web: http://www.etf.it

The European Training Foundation is an agency of the European Community which works in the field of vocational education and training in Central and Eastern Europe, the New Independent States and Mongolia. The Foundation also provides technical assistance to the European Commission for the Tempus Programme.

A great deal of additional information on the European Union is available on the Internet. It can be accessed through the Europa server (http://europa.eu.int).

Cataloguing data can be found at the end of this publication

Luxembourg: Office for Official Publications of the European Communities, 1997

ISBN 92-9157-131-8

© ECSC-EC-EAEC, Brussels • Luxembourg, 1997

Reproduction is authorised, except for commercial purposes, provided the source is acknowledged.

Printed in Italy

FOREWORD

This report on vocational education and training reform has been produced by the European Training Foundation based mainly on information provided by the National Observatory. The report consists of a condensed description of the present situation in vocational education and training and analysis of the main challenges facing vocational education and training reform in the country. It also outlines possible priorities for future assistance to sustain and further the reform process. The report will be updated in 1998.

In order to provide accurate, up to date information on the progress of reform, a network of National Observatories has been set up by the Foundation in partnership with the national authorities of the partner countries. These National Observatories, mainly hosted by existing organisations involved in the reform process, gather and analyse information on vocational education and training issues according to a common framework agreed with the Foundation. The Observatories are also responsible for the dissemination of their outputs. Since 1996, National Observatories have been set up in 22 partner countries eligible for support under the EU Phare[1] and Tacis[2] programmes. The Foundation aims to set up Observatories in all remaining partner countries in these regions by the end of 1997.

This report is one of a series of country reports and fact sheets which the Foundation is currently producing on the reform process in each of the partner countries. The Foundation intends to produce these documents on an annual basis. These reports are available from the Foundation and can also be consulted on the Foundation's Home Page on the WWW. Enquiries regarding the reports should be addressed to the Information & Publications Department at the Foundation.

Please note that more detailed information on vocational education and training reform issues in each country is also available directly from the respective National Observatory. Please refer to the list of National Observatories enclosed in this report.

Torino, October 1997

---

1 In the Phare area, Observatories have been set up in Albania, Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovenia

2 In the Tacis area, Observatories have been set up in Azerbaijan, Belarus, Georgia, Kazakstan, Kyrgyzstan, Moldova, Mongolia, Russian Federation (Moscow and St Petersburg) Tajikistan, Turkmenistan, Ukraine, Uzbekistan.

CONTENTS

1. BASIC DATA 3

2. RECENT DEVELOPMENTS IN THE VOCATIONAL EDUCATION AND TRAINING SYSTEM 6

2.1 Main features of the system 6
2.2 Strategic objectives for vocational education and training 7
2.3 Legislative framework 8
2.4 Developments in specific areas 8

2.4.1 Administrative structure and level of decentralisation 8
2.4.2 Finance 9
2.4.3 Adaptation of training to change 10
2.4.4 Identification of skills needs 11
2.4.5 Quality standards and qualifications 11
2.4.6 Promotion of continuing vocational training 12
2.4.7 Social partners 12
2.4.8 Involvement of enterprises in vocational education and training 13
2.4.9 Equal opportunities 13
2.4.10 Access to training 14
2.4.11 Vocational guidance and counselling 14

3. INTERNATIONAL ASSISTANCE AND CO-OPERATION 14

3.1 Phare Assistance in the field of vocational education and training 15
3.2 Preparation for Leonardo 15
3.3 Other assistance 15

4. CHALLENGES AND FURTHER NEEDS 16

4.1 Skills needs analysis 16
4.2 Institutional arrangements 17
4.3 Qualifications and training methods 17

5. POSSIBLE PRIORITIES FOR FUTURE ASSISTANCE 18

ANNEX 1: Key indicators 21
ANNEX 2: Diagram of the vocational education and training system 22
ANNEX 3: Legislative framework 23
ANNEX 4: Responsible bodies 25
ANNEX 5: International assistance 26

1. BASIC DATA

The Czech Republic has managed to maintain a relatively stable macro-economic climate, and it has also made considerable progress in structural transformation. The newly-developed private sector accounted for 75% of the country's GDP in 1996 and exports have also been reoriented towards western countries. All this has happened with little unemployment and no visible signs of poverty or economic hardship. Future reform efforts will be focused on adapting the system to the demands resulting from the Association Agreement with the European Union.

Geographic area:	78, 864 km^2
Total population / population density / growth:	10.3 million (1995) / 131 per km^2 / decline 0.1% (1996) including migration
Urban Population:	74.7% (1995)
Age structure:	under 15's: 18.9% / 65's and over: 13.1%
Ethnic profile:	Czech (93%), Slovak (4%), Other (3% - Romany, Polish, German, Ukrainian, Hungarian)
Languages:	Czech (official)
GDP-ECU/GDP per capita-PPP-ECU/ growth:	94 Billion / per capita 9,410 (1995) / growth 4% (1996)
Inflation:	8.8% (1996)
Privatisation of state enterprises:	80% of assets assigned for privatisation
Unemployment: **(ILO definition)**	3.4% (1996)
Education budget:	5.9% of GDP in 1995, public expenditure on vocational education and training approximately 1.3% of GDP in 1995

2. RECENT DEVELOPMENTS IN THE VOCATIONAL EDUCATION AND TRAINING SYSTEM

2.1 Main features of the system

Over the past six years, the Czech education system has undergone an extensive transformation process which is still underway, although the main features of the institutional structure of education are characteristic of the system that existed before 1989. In principle, all schools and education establishments are part either of the state education system or of the non-state system (private and denominational schools), with the exception of higher education institutions. The proposed bill that would have permitted the establishment of a non-state higher education sector has not been approved by Parliament.

Attendance at basic schools is obligatory, starting at the age of six for a period of nine years. This came into force during the 1996/97 academic year. Following basic schooling, pupils can choose among three main types of secondary schools:

- **Secondary general schools** (*Gymnasia*) provide a general education at secondary level. Studies are completed after four years by a final examination (*Maturita*).
- **Secondary technical schools** (*Stredni odborné skoly*) provide vocational education and training in four-year courses. These end with the *Maturita* exam which is considered equal to the *Maturita* obtained at *Gymnasia.* In addition, two and three-year courses are offered.
- **Secondary vocational schools** (*Stredni odborná ucilisté*) in general offer three-year courses (and, in just a few cases, two and four-year courses) of vocational training and qualify pupils as skilled workers and for service occupations. Pupils obtain an apprentice certificate. Two-year follow-up courses lead to *Maturita* and consequently to entrance at higher and post-secondary education institutions.

In 1995, an 84.27% of students in secondary education participated in vocational education and training. The present vocational education and training structure evolved from public demand (i.e. by parents and pupils), demographic developments (fewer pupils entering secondary schools) and the current funding modalities. Funding is based on the number of students attending a particular school and the costs of specific training programmes. This inevitably leads to a competitive environment between educational establishments.

Enrolment figures in secondary vocational schools and secondary technical schools changed between 1989 and 1995. By 1995 there was a 40% increase in the number of first-year students at secondary technical schools (their number rose from 41,798 to 58,668 students). Over the same period the number of first-year students at secondary vocational schools dropped from 109,192 to 74,616, a 31.7% decrease. This development clearly indicates that more and more students are choosing educational paths that lead to a broader variety of career options.

Reform activities have developed in much the same way. The following new features have been implemented:

- an extended form of secondary general education (starting after five years of basic school - *multi-year gymnasium*);
- integrated secondary schools (combining vocational and technical secondary school education);
- higher professional schools (enabling secondary school graduates to acquire post-secondary, technical qualifications with a practical orientation in two to five-year programmes);
- university-level bachelor studies.

These elements increase the diversity of educational options on offer and allow a wider choice of study paths, thus taking more into account the individual's needs. They are a natural reflection of the social and economic changes in the Czech society of late and follow developments in the education systems in other countries.

2.2 Strategic objectives for vocational education and training

The development of a coherent policy for the adaptation of the vocational education and training system to the new labour market needs has not been a major issue for the Czech government so far. The movement towards vocational education and training reform has been rather bottom-up. Improvements, innovations and adjustments of the system have been introduced step by step, with a view to creating a flexible, adaptable system with a wide range of attractive options for students.

An integral part of the ongoing reform efforts in vocational education and training is seeking to establish contacts with social partners, e.g. representatives of employers and employees, professional associations and business associations.

Another aim of the reform process is to create links between initial and continuing vocational education and training. Although this is the general objective, there is no evidence that concrete measures in this direction have already been taken.

There have been efforts to integrate the two main types of vocational education (secondary vocational schools and secondary technical schools) with a view to providing a wider educational choice and facilitating student mobility within the system.

The OECD Review of National Policies for Education in the Czech Republic points out that although the spontaneous developments in vocational education and training can be considered positive, certain negative aspects remain, such as a lack of equilibrium in the development of different sectors of education.

2.3 Legislative framework

The legislative foundation stone in the field of education is Law No. 29/1984 Coll.. It deals with primary (basic) schools, secondary schools and higher vocational schools (Schools Act) and has undergone several amendments since 1989. The School Act Amendments of 1990 introduced several important changes which followed on from the radical social change. Primarily they removed the ideological bias from education and created room for variety in tuition. They enabled schools to become independent legal entities, created space for non-governmental schools and transferred the responsibility for establishing secondary vocational schools to the respective Ministries.

1995 saw the implementation of yet another significant amendment which introduced compulsory nine years basic schooling prior to entering secondary education, abolished post-*Maturita* studies and established higher professional schools. The amendment also stipulates that official (state) recognition of a school is determined by its membership in the school network and by the use of the curricula approved by the Ministry of Education. The law No. 564/1990 on State Administration and Self-Administration was adopted in 1990. It laid down the current system of educational administration. The managing and establishing powers were shifted to the Ministry of Education. The responsibility for apprenticeship training was returned from the Ministry of Economy to the Ministry of Education in 1996 (see Annex 3).

2.4 Developments in specific areas

2.4.1 Administrative structure and level of decentralisation

There has been a gradual transfer of competences for vocational education and training from sectoral Ministries to the Ministry of Education, Youth and Sports. A Directorate for Vocational Education and Training was established and the Ministry of Education, Youth and Sports is now responsible for all areas related to vocational education and training. This will contribute to the development of more coherent national vocational education and training policies.

The Ministry develops and implements the concepts and strategies laid down in the government's education policy and prepares draft education bills. It is responsible for the management of education and budget administration and control. Moreover, it monitors the schools in educational matters and approves curricula. Inspections are carried out by the centrally established School Inspectorate with the necessary infrastructure at district level. Activities to develop policies and mechanisms for quality assessment and standards have just started. Furthermore, the Ministry is responsible for licensing educational institutions, amongst them secondary schools, to deliver re-training programmes.

School administration in the 77 districts is carried out by the District School Offices which report directly to the Ministry of Education. Their main task in the field of secondary education is budget allocation to schools. Apart from that, their authority vis-à-vis schools is limited. The interests of parents and pupils are represented by District School Councils, which have been established as self-governing bodies. Secondary schools have acquired the status of independent legal entities and have been given a large degree of autonomy. Schools may establish school boards consisting of parents, social partners etc.

School directors are fully responsible for the quality and effectiveness of the educational process, for the implementation of approved training programmes, and also for financial management and staff policy, including appointing and dismissal of staff.

There is no regional school administration framework at present, although after the elections the government affirmed its intention to transfer a number of functions to the regions. Efforts in this direction are, however, only just beginning.

The Ministry of Labour and Social Affairs is in charge of re-training programmes for the unemployed which are organised through the Labour Offices and usually financed by the Ministry.

2.4.2 Finance

With a few exceptions, state technical and vocational schools are funded by the government, the biggest proportion coming from the Ministry of Education, Youth and Sports. Several sectoral Ministries (Agriculture, Defence, Interior) also provide funds for their relative schools. While almost all **secondary technical school expenditure** is covered by the state budget, **secondary vocational schools** only receive a contribution from the government. The remaining proportion comes from corporate funding (as remuneration for apprenticeship training) and from profit making activities of individual schools. The government also contributes financially to the running of **private vocational schools** - this amounts to 60-80% of the sum allocated to state vocational schools.

Currently, funding to schools is estimated according to the number of students and the cost of their educational programmes. The Ministry of Education annually defines quotas (cost of education per student). These quotas vary relating to the cost of education in individual branches. The Ministry allocates the calculated lump sum to the District School Offices which then further distribute funds to individual schools. To a certain extent they are allowed to also consider performance and the specific needs of individual schools.

In 1995, total expenditure on education amounted to 5.9% of the country's GDP, i.e. approximately 70 billion Czech crowns (with circa 80% coming from the state budget and 20% from the municipal budget). This amounts to 14.6% of the state budget, approximately one quarter of which was allocated to vocational education.

There are indications that this share is growing slightly, however evidence to support this is lacking.

With regard to **continuing vocational education and training**, there is a wide variety of funding models, ranging from government-funded part-time courses at state-run technical schools and enterprise-funded staff training to individual funding of specific training courses delivered by a variety of training institutions.

Several studies indicate that companies invest about 1% of the total gross payroll cost in training and education of their personnel. The costs of re-training for unemployed and re-qualification programmes are covered by the employment services of the Ministry of Labour.

2.4.3 Adaptation of training to change

The transformation to a market economy with consequently the establishment of related institutions, the development of a service sector as well as the growing number of small and medium-sized enterprises has been accompanied by an increasing demand for commercial and legal professions, new technologies and languages. The response of the education system to labour market changes has been both qualitative and quantitative, reflecting the requirements of the ongoing transformation and economic restructuring process. Out-dated disciplines have been discontinued whereas a range of new fields and branches have been introduced.

Reduced employment in agriculture and industry over the past few years has resulted in a drop in demand for technical and agricultural occupations. While there is a great demand for economics and business-related subjects, a number of technical disciplines are no longer considered attractive. Between 1989 and 1993, student enrolments for mechanical engineering, metallurgy and chemistry dropped significantly, while numbers of students focusing on electrical engineering, textile industry, health care and agriculture decreased to a lesser degree. The number of first-year students in building construction schools has decreased. On the other hand, there has been a sharp increase in the number of students choosing commerce and economics.

Changes in employment have slowed down since 1995 and the employment structure is now more or less stable. However, the current growth in industry is an indication of the reversed trend and new demand from technical branches.

The driving force behind the reform of vocational education is the fact that schools are now involved in curriculum innovation and development. More than 400 modified and new curricula were devised from 1990 to 1996, the largest number was implemented between 1990 and 1993. The modernisation of curricula has usually focused on the following issues:

- matching educational supply with labour market requirements, with particular emphasis on regional needs;
- adjusting educational supply to public demand to meet student and parent needs;
- creating individual school profiles with a view to attracting more students and therefore increasing financial resources.

The need for an increase in labour force mobility and flexibility and the danger of qualifications being too restrictive at an early stage have resulted in curricula being developed on a broader and more general basis.

Vocational education curricula leading to *maturita* in preparation will include a higher proportion of general subjects and will focus on key competences with a view to providing the basis for further specialised education and training.

Economics, marketing, business administration and management, financial management, information technology and foreign language training have become an integral part of basic curricula in a growing number of courses (exact figures are not available to date). Courses on production technology, commerce and services are of increasing importance (27% of these courses prepare students for establishing their own businesses, 14% prepare students for a career in commerce and 25% focus on the service sector).

Vocational training courses for workers provide a higher proportion of practical skills training and emphasise immediate applicability in specific work contexts.

2.4.4 Identification of skills needs

The main data flow in the field of education is collected and processed by the Institute for Information on Education (UIV) which stores and analyses information on all aspects of vocational education and training. Within the framework of the INES project, the UIV is doing some large-scale research on employers and is focusing on the degree to which graduates of the vocational education and training system meet the employers' requirements.

Labour market monitoring for the purposes of vocational education and training focuses primarily on unemployment among graduates. It is carried out by the Ministry of Labour which uses data collected by District Labour Offices. The Research Institute of Technical and Vocational Education (VUOS) has been working on an information system based on selective surveys of the social and demographic as well as professional structure of unemployment, with special emphasis on unemployment among graduates.

2.4.5 Quality standards and qualifications

Since 1994 the Ministry of Education, Youth and Sport has been working on setting up education standards. A draft of an elementary or "national" curriculum has been produced by the Research Institute of Technical and Vocational Education. This curriculum lays down general guidelines to be followed when developing curricula for individual schools.

Professional standards have been developed from job description analyses in selected occupations and a comparative analysis of vocational requirements in the European Union. These standards are being evaluated and updated with input from employer representatives.

2.4.6 Promotion of continuing vocational training

The market for continuing vocational education and training is well developed, driven by the demand from individuals rather than companies. At present, there are approximately 1,500 legal entities that provide continuing vocational education and training. Besides that, about one third of all secondary schools and many higher educational establishments are involved in CVET. They offer a wide spectrum of professional short courses and seminars (in management, marketing, economics, computing, etc.), as well as recognised qualifications.

Continuing vocational education and training is provided by vocational and technical schools, higher education establishments, (large) enterprises and training companies. Vocational education and training for adults within the school system is usually part-time and sometimes includes distance learning elements. These courses generally grant approved professional qualifications.

Participants in courses offered by training companies outside the school system can only obtain a recognised certificate if the institution is accredited by the Ministry of Education or by international bodies.

On-the-job training possibilities are usually offered by larger companies, which in some cases apply a systematic approach to staff development. There are training courses for staff at every level, ranking from senior managers to manual workers. These training programmes usually reflect the companies' current needs.

A survey carried out in 1996 shows that, over the past five years, 35% of the Czech population of working age have participated in more than one training course. Elements in the 1996 amendments to the Education Act reflect the increasing role that is attributed to vocational education and training provision on a private basis. Management training is frequently supplied by private institutions, leaving little space for public providers and thus offering wider opportunities for specific target groups. Considering the competitive environment within this sector, long-term survival of many of these new private training institutions is far from certain.

2.4.7 Social partners

The legal framework for social dialogue is mainly defined by

- the Law on Collective Bargaining 2/1991 as subsequently amended,
- the Law concerning the freedom of association (No. 83/1990), as subsequently amended, which regulates the activities of social partner organisations,
- the amended Labour Code providing for the participation of social partners in labour relations.

Social dialogue in vocational education and training takes place at local, national, and sometimes sectoral level (the latter only as far as training for unemployed people is concerned). At national level, the main regulatory framework for this participation is provided by the Tripartite Agreement establishing the National Council for Social Dialogue. The social partners are also represented on the National Training Fund Board. Social partners are involved in the reform of initial vocational education and participate in public employment agencies dealing with training issues.

The social partners seem to focus on continuing training and the main priorities on the employers' side are to anticipate and upgrade skills for the employed and on the trade unions' side the training or retraining of the unemployed, young and low-skilled. Generally speaking, there is still room for improvement at all levels of involvement.

2.4.8 Involvement of enterprises in vocational education and training

The formerly well established school-industry links have vanished. Precise information on the present state of the art is not available. The accessible material indicates that only a few enterprises remain interested in, or, in the case of small and medium-sized enterprises, can afford effective links with vocational schools. At present, co-operation between schools and enterprises is developing on a case-by-case basis, although a number of schools have already signed co-operation contracts with businesses. The existence of a Prague University based "Association for Training of Adults" in which some companies are represented is however a positive element.

Practical training, including the portion which is mandatory within apprenticeship training programmes, is sometimes provided by companies.

Companies are also involved in curricula amendments and internship training compulsory for second- and third-year students of secondary technical schools (the minimum duration of which is two weeks).

2.4.9 Equal opportunities

Equality of education opportunity is an uncertain area and appears to be poorly documented, thus suggesting a relatively low priority. This could be considered a consequence of the poor representation of women in the political system. The UNDP Human Development Report 1996 states that women have fewer opportunities on the labour market, their rate of unemployment is higher than for men (no further details mentioned) and that women's earnings amount to 74 % of male income .

2.4.10 Access to training

The Constitution grants every citizen the right to employment. Career advice centres and labour offices under the responsibility of the Ministry of Labour play an important role in enhancing the information flow between vocational education and training and the labour market. Their main task is occupation and career guidance. While overall unemployment is low, there are disparities among regions and population groups depending on the educational level, gender, age and physical condition. Labour offices try to guide those looking for jobs towards re-training courses aiming at different objectives, such as upgrading existing qualifications or providing new ones. There are several schemes for disabled workers e.g. special job subsidies. Enterprises with more than 20 employees must employ 5% disabled workers, of which 0.5% have a "serious" disability.

2.4.11 Vocational guidance and counselling

With regard to guidance and counselling (including psychological support) there are two main streams in the Czech Republic. Advisory services are offered at 2,500 basic schools, providing pupils with information on secondary schools and courses available.

The Ministry of Labour has set up a network of labour offices with information and advice centres in every district. These centres provide information and advisory services both to those looking for jobs and people in search of appropriate educational possibilities free of charge. Their profile has recently been extended and now includes counselling on suitable occupations and jobs that match the clients' qualifications, interests and abilities as well as the requirements of the labour market. Data are updated twice a year. In 1997 the Ministry of Education and the Ministry of Labour signed an agreement on the transfer of data on employment opportunities and unemployment by occupational fields.

3. INTERNATIONAL ASSISTANCE AND CO-OPERATION

3.1 Phare Assistance in the field of vocational education and training

Vocational education and training components were contained in 1991 Labour Market and 1992 5.5 million ECU Education Phare programmes. The former provided a strategic review of vocational education and training, the latter a 1 million ECU foreign language teacher training programme. In 1993, 8 million ECU were allocated for Human Resources Development. This allocation was composed of (i) a 4 million ECU programme for vocational education and training realised through a pilot activity in 19 pilot vocational education and training schools, (ii) an amount of 1 million ECU for the establishment of a National Training Fund to develop mainly management training, and (iii) an amount of 1 million ECU for the establishment of a Pro-active Labour Market Intervention Fund (PALMIF) to provide grants for employment projects with a continuing training component.

The National Training Fund was replenished both in 1994 and 1995 with a 2 million ECU allocation, the PALMIF was replenished in 1994 with 2 million ECU (see Annex 5).

3.2 Preparation for Leonardo

The Czech government has taken the necessary steps to allow eventual full participation in the Leonardo programme. It has agreed the Additional Protocol to the Europe Agreement and confirmed to the European Commission the way in which it will finance its Leonardo participation using national budget resources. A national structure to co-ordinate Czech participation in Leonardo has been established in the National Training Fund. This will permit good synergy between Phare vocational education and training, Leonardo and the National Observatory, given that theses are all managed by the National Training Fund. Czech national budget resources will support present "silent partners" and possible future full participants.

In 1996, there were 37 proposals with Czech partners and 18 have been provisionally approved.

3.3 Other assistance

Bilateral assistance aimed at supporting initial and continuing vocational education and training has been provided at several levels: central government, social partners and training institutions. Assistance is usually targeted on specific projects, e.g. curriculum development, train-the-trainer initiatives, student exchange programmes etc., while the dissemination of results is normally not part of these activities. About 10% of the total 165 million ECU granted to the Czech Republic in 1993 and 1994 was supporting vocational education and training. For a list of projects see Annex 5.

4. CHALLENGES AND FURTHER NEEDS

Accession to the EU represents an important goal which also defines vocational education and training activity , but analysis of the preparatory requirements for EU accession has not yet been carried out .

Since 1989 the Czech education system has responded positively, quite quickly and on a large scale to the democratic changes in society, to the transformation of the economy and to the subsequent need for more flexibility in the vocational education and training system. However to date there is no agreed framework for education and training. As a result, there is a certain lack of coherence in vocational education and training reform which could lead to problems in sustaining the reform process. Although moving in the right direction, the vocational education and training system has been developing in a rather deregulated and sometimes unsystematic way towards a more open and variable approach to training.

4.1 Skills needs analysis

The initial answer of the education system to labour market developments in the period of economic transformation was short-term oriented and reactive. It mainly took place at school level, largely ignoring more general developments on regional, national and international labour markets.

There is a need to develop mechanisms for systematic identification of skill shortages at national, regional and enterprise level and, at the same time to establish long-term forecasting methods. In parallel, the experience gathered by spontaneous curricular adaptations carried out in individual schools has to be translated into appropriate policy decisions for vocational education and training. Moreover, the Czech vocational education and training needs a systematic approach to curriculum development in initial and continuing training at national level which allows for regional variations.

In addition to identifying skills required for specific professions, it is important to set up formal mechanisms on how to systematically integrate the issue of key competences such as teamwork, problem solving, communication, organisational skills and entrepreneurial behaviour, foreign languages, etc. in curriculum design. Such matters will teach students the professional flexibility required in a dynamic economic environment and lay a broad basis for continuing education and training. The reform efforts have to include related issues such as the development of innovative didactic concepts .

Continuing training plays an important role in the pre-accession process as it is vital for enhancing competitiveness. A persistent problem is that activities in this area are currently rather ad hoc and lack any common conceptual approach. As no new legislation for stimulating and co-ordinating developments in this field has been drawn up so far, a systematic approach towards a coherent system of continuing training is a high priority issue. It has to include appropriate standards and certification and reinforce the link between training and re-training the present workforce.

4.2 Institutional arrangements

Decentralisation and delegation of responsibilities to schools has to be balanced by a long-term conceptual and legislative framework for vocational education and training at national level.

A higher degree of decentralisation will establish and strengthen links to the labour market, thus giving an impact to the overall development of specific regions. An adequate infrastructure is needed for interaction among vocational education and training suppliers, labour offices, enterprises, chambers and administrative bodies at regional level in order to facilitate dialogue and implementation of concrete activities.

It is necessary to improve social partner involvement in vocational education and training issues. At this stage, they need support through targeted training measures to improve their awareness, knowledge and analytical capacities on vocational education and training. Input from EU partner organisations and programmes (e.g. Leonardo) could stimulate such developments in the country. The experience gained in pilot schools and examples of good practice, e.g. of social partner co-operation at a regional level, can provide the basis for activities at the national level.

With regard to access to training and equal opportunities, the scope of pertinent research has to be broadened. While regional discrepancies are addressed fairly well by the Czech Statistical Office, there is no similar information on ethnic disparity in education opportunities. As equality of educational opportunities is one of the pillars of democratic education, this issue requires a fresh approach. The output of research activities could be the basis for tailor-made programmes addressing the specific needs of disadvantaged groups.

Furthermore, a coherent and efficient system of guidance and counselling has to be set up .

4.3 Qualifications and training methods

A common approach to accreditation, standards and quality control is required at all levels of education. Transfer of know-how, quality control and certification still needs considerable further work, both in the field of initial and continuing vocational education and training. Standardisation of the *maturita* examination across all areas of secondary education is essential to ensure comparability. This has a direct impact on individuals' entrance chances to higher and post-secondary education and is therefore essential in terms of equality of opportunity.

There is still a lack of a common and up-to-date methodology for developing occupational profiles and setting standards for the accreditation and quality control of training institutions. The work currently done on "graduate profiles" and "job descriptions" runs the risk of being quickly outdated (these job descriptions were developed in the 80's) and is partly inadequate due to the lack of a systematic approach (e.g. creating broad-based profiles in relation to those defined by EU Member States).

New approaches to teaching and training strategies have made little progress. The system of continuing training for teachers is being re-established, but due to a lack of support and co-ordination by the education authorities, current teacher training schemes have been insufficient. The current situation poses great demands on teachers and trainers as their roles need to be redefined. They are now responsible for the implementation of new and updated curricula. Moreover, they have become facilitators and managers of learning processes. Targeted training and retraining should have high priority, as it will promote innovative teaching and training methods which integrate training with the world of work and meet the standards of the European Union .

5. POSSIBLE PRIORITIES FOR FUTURE ASSISTANCE

- **Assuring compatibility of vocational education and training supply with labour market demands:** Support could stimulate improvements of skill requirements analysis both at national and regional level and the development of medium- and long-term forecasting. These forecasts would be the basis for a strategic policy for initial and continuing vocational education and training. Support is also needed for systematic integration of key competences into curricula.

- **Developments in continuing vocational education and training:** Support should be provided to develop a coherent system of continuing vocational education and training, including human resource development in enterprises. A national framework for standards and accreditation needs to be established. Funding could support this work and stimulate retraining measures as a tool to adapt the skills of the current workforce to present needs.

- **Encouraging the involvement of social partners:** Support should be given for building up the necessary infrastructure for structured social dialogue. Targeted training measures to increase knowledge on vocational education and training could stimulate social partners to take an active role in shaping vocational education and training policy.

- **Equality of opportunity:** Research is needed to control the equality of opportunity in training for minority, ethnic and disadvantaged groups. If disparities are found, a 'structural fund' approach could give priority to these groups. Support for setting up a coherent guidance and counselling system would help to improve access to training and the labour market, promote individual career perspectives and facilitate workforce mobility.

- **Assuring quality in vocational education and training:** Support for introducing quality assurance standards for vocational education and training providers would raise the overall standards. Standardisation of the *maturita* examination is an important first step as it is fundamental to ensure mobility within the training system and on the labour market. Assistance in defining occupational standards and for improving the quality of the basic information for these would help to raise vocational education and training quality.

- In connection with the Czech Republic's accession to the EU, support should be given to define training standards similar to those of EU countries so that qualifications can be mutually recognised.

- Targeted training for teachers and trainers: The quality of teaching and training is vital in vocational education and training. Teachers and trainers therefore need to be given the opportunity to obtain targeted training in new, up-to-date teaching methods.

Annexes

1. **Key indicators**
2. **Diagram of the vocational education and training system**
3. **Legislative framework**
4. **Responsible bodies**
5. **International assistance**

ANNEX 1

Key indicators [1.]

Indicators	1994			1995		
A. Access and Participation						
1. Participation in education and training of 16 year olds of which in vocational education and training	86.60%* 85.86%*			97.67% 84.52%		
2. Participation in education and training of 18 year olds of which in vocational education and training	29.59% 37.07%			38.92% 40.01%		
3. Relative importance of vocational education and training in secondary education (in terms of enrolment)						
Total Males Females	84.11% 86.99% 80.85%			84.27% 87.21% 81.41%		
4. Educational attainment of the population				ISCED 0-2	ISCED 3	ISCED 5-7
(25-59 years old)	-	-	-			
Total				15.37%	73.90%	10.73%
Males				9.51%	77.62%	12.87%
Females				21.21%	70.19%	8.60%
(25-29 years old)	-	-	-			
Total				8.69%	80.47%	10.84%
Males				7.50%	80.42%	12.07%
Females				9.92%	80.52%	9.56%
B. Finance						
5. Public Expenditure on Education as percentage of GDP	5.95%			5.86%		
6. Public Expenditure on vocational education and training as percentage of GDP	1.4% *			1.3% *		
C. Labour Market Trends						
7. Number of employed	4.806.620**			4.939.660		
8. Unemployment rates						
Total Younger than 25 Older than 25	3.84% 7.72% 3%			3.58% 6.75% 2.92%		
9. Unemployment rates by educational attainment of the population (25-59 years old)	ISCED 0-2	ISCED 3	ISCED 5-7	ISCED 0-2	ISCED 3	ISCED 5-7
Total	6.98%	2.62%	0.93%	8.13%	2.35%	0.95%
Males	7.91%	1.97%	0.9%	9.63%	1.79%	0.69%
Females	6.51%	3.42%	0.99%	7.29%	3.04%	1.36%

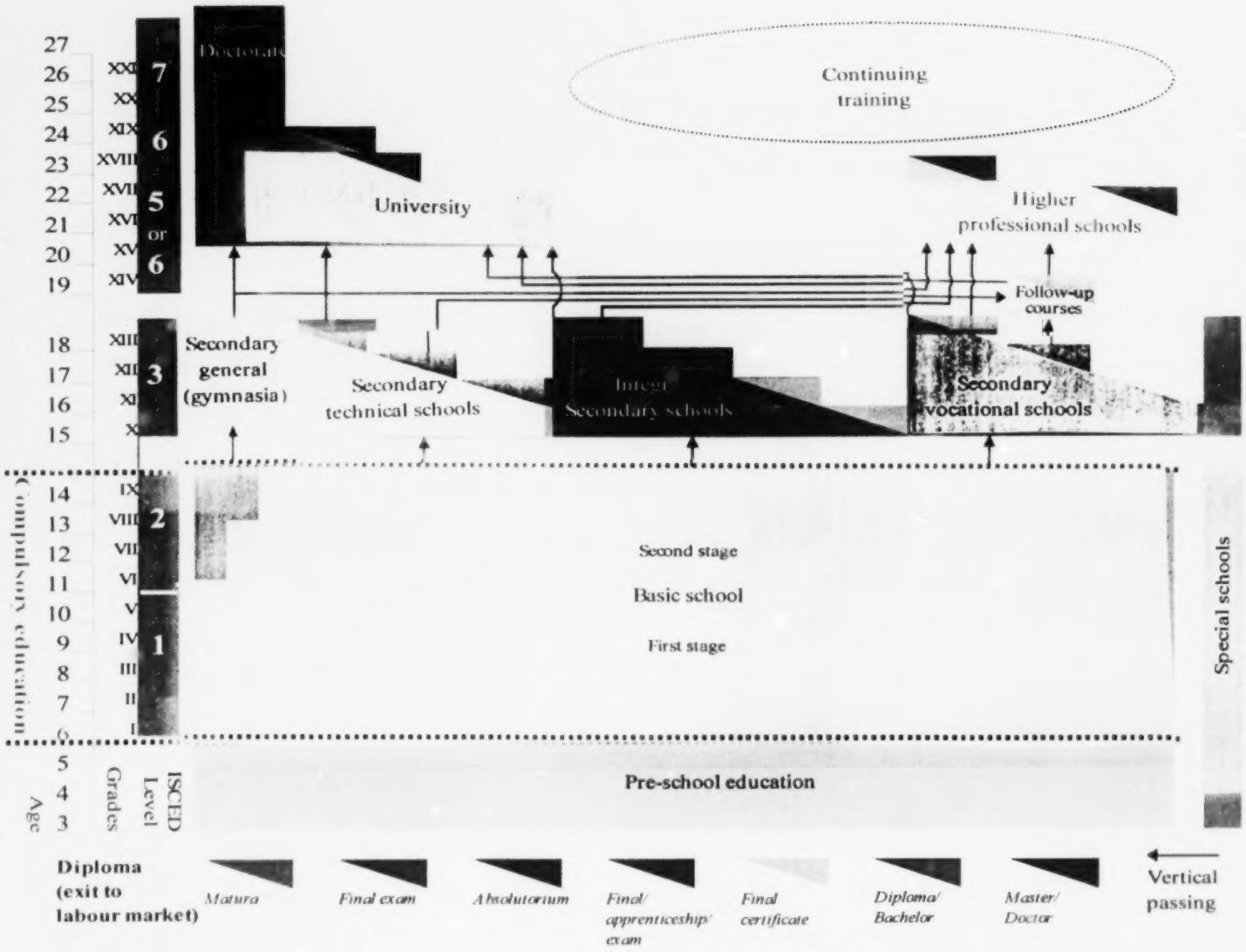
*est.

** 31st of December

[1] Data provided by National Observatory.

ANNEX 2

Diagram of the vocational education and training system



This diagram represents the first stage in the ongoing development of a standard graphical model for vocational education and training systems. Future refinement may include the further alignment of terms, student enrolment and dropout figures, and local language terms.

ANNEX 3

Legislative framework

A. Education policy

Amended Law no. 29/1984 on the System of Basic and Secondary Schools no. **171/1990 Coll.**: It has created the preconditions for school autonomy in determining the curriculum and organisation of studies and enabled the establishment of non-state schools.

Amendment no. 138/1995: modified the title of the a.m. Law to read "The System of Basic, Secondary and Higher Schools Law".

It established:

- the 9th grade of the basic school as compulsory, thus deferring the decision on the choice of further studies by one year (from 1990 onwards most basic school pupils graduated from 8th grade and attended 9th grade of compulsory education at a secondary school);
- a new type of specialised school - the practical school, designed for the graduates of special schools or for pupils who spent 9 years in basic school without finishing 9th grade.
- a new level of education - higher professional schools.

Law No. 564/1990 Coll. on State Administration and Self-Governance in Education (School Autonomy) completed the process of significant changes in education management. It provides the foundation for management and financing of basic and secondary schools at regional, district and municipality level which is carried out by the education departments (former National Committees) under the responsibility of the Ministry of Education, Youth and Sports. An **Amendment to this Law (June 1995)** regulates the activities of the Czech School Inspectorate and the accreditation of schools.

Law no. 76/1978 Coll. on Pre-school and School Establishment, amended in 1991, defines the role of educational counselling including counselling on job selection.

Law no. 522/1990 Coll. transferred the right to establish Secondary Vocational Schools from businesses to central bodies.

Law no. 474/1992 on Measures Within the System of Central Administration Bodies of the Czech Republic transferred the vocational training of apprentices from the authority of the Ministry of Education, Youth and Sports to the Ministry of Economy.

Law no. 272 /1996 re-establishes the Ministry of Education as fully responsible for education and training and also puts in charge of secondary health schools.

Law no. 172/1990 on Institutions of Higher Education established autonomy of higher education institutions and renewed their academic freedom. It also contributed to diversification of higher education by introducing a shorter study cycle, leading to a Bachelor's degree. Furthermore it established the Accreditation Commission, thus creating the prerequisites for quality control in higher education.

B. Employment policy

Employment Law no. 1/1991 Coll. and Amendments;

Law of the Czech National Council no. 9/1991 Coll. on Employment and the Activities of the Bodies of the Czech Republic in Employment and Amendments;

Instruction of the Employment Services Department no. 2-1992, which specifies the procedure for ensuring practical training of school graduates and young people. It regulates in detail the activities of the Public Employment Service (PES). Financial contributions for the training of young people may be provided for one year (training is to last usually two years) in order to prevent youth unemployment.

The Ministry of Labour and Social Affairs Decree no. 35/1997 Coll. specifies the procedure for establishing public utility jobs and public works for young people.

The Ministry of Labour and Social Affairs Decree no. 21/1991 Coll. on specific conditions for retraining of job applicants and employees stipulates also the conditions for retraining young people, including drop-outs.

The Governmental Resolution no. 148/1994 on Measures to Address Unemployment in Most Seriously Affected Districts responded to the increasing regional disparities in terms of unemployment.

Decree of the Ministry of Labour and social Affairs of the Czech Republic no. 115/1992 Coll. on the employment of handicapped citizens.

ANNEX 4

Responsible bodies

- The Ministry of Education, Youth and Sports has the overall responsibility for the education system. It is the steering body for most of the activities of state administration concerning education and creates the conditions for its development.
- Within the Ministry a Directorate for Vocational Education and Training was established which is responsible for vocational education and training development and planning.
- The Czech School Inspectorate is a key organisation supervised by the Ministry of Education. It supports the Ministry by monitoring education results, pedagogical and professional management, staffing, equipment and teaching materials, and utilisation of funds.
- The District School Offices are directly responsible to the Ministry of Education. They are entrusted with economic, financial and administrative tasks.
- All secondary schools have acquired the status of independent legal entities. School directors are fully responsible for quality and effectiveness of the educational process. Gradually they have been entrusted with financial management of the school, staff policy and relations with the municipality and the public.
- The Ministry of Labour and Social Affairs is in charge of public employment services. There are 76 district employment offices. They implement all main functions of public labour market policy and are directly subordinate to the Ministry of Labour and Social Affairs. They offer both training and re-training programmes for the unemployed and job counselling and information services.

ANNEX 5

International assistance

National Phare Programmes

Labour Market Restructuring

This programme was implemented in 1992-1994 and contained a significant vocational education and training component. Within the programme the following projects were realised:

- A strategic study on vocational education and training;
- Adult Education Policies and Programmes;
- Information and Careers Guidance System.

Vocational Education and Training Reform

The programme started in 1994 and will be finalised in 1998. The objective is to contribute to sustainable vocational education and training reform through activities in curriculum development, establishment of educational standards, management, teacher training, quality control, involvement of social partners and financing of vocational education and training. Nineteen pilot schools were selected to develop and test innovative curricula and to participate in school development and staff training courses. The results of the programme will be evaluated and summarised in a policy paper at the end of 1997. This paper will include recommendations for key areas of vocational education and training reform.

Upgrading the education system in the Czech Republic

This programme (1993-1996) covered the education system as a whole. It included components focusing on educational policy, management, foreign language training, quality improvement in primary and secondary education, and higher vocational education.

National Training Fund

This programme was launched in 1994 with the establishment of the National Training Fund. The Fund's activities focus on human resource development, in particular on the development of continuing education and training (especially management training).

Multilateral Phare co-operation

Distance Learning

This programme includes:

- the establishment of a National Centre for Distance Learning under the auspices of the Centre for University Studies in Prague and four regional centres;
- European studies programmes;
- train the trainer programmes.

Universities and Colleges

Four projects will be launched:

- University Education Quality Assurance;
- International Education Indicators;
- Diploma Equivalence and Recognition;
- European Studies.

Bilateral projects

Austria

- Training courses for those looking for jobs (Ministry of Labour and Social Affairs);
- Teaching Models for Printing and Graphic Arts (Secondary Vocational School Brno);
- Training the Trainers in the Field of Automation (Ministry of Labour and Social Affairs)

Belgium (Flemish community)

- Training Programme for Civil Servants (Charles University, Prague)
- Training support for car mechanics (Integrated Secondary Technical School in Most-Velebudice)

Canada

- Support for the Czech Management Centre (Celakovice)

Denmark

- Environmental Programme (Secondary Technical School in Karvina)
- Establishment of a Higher Technical Academy (Technical Academy Prague 8)
- Saving Energy: training and re-training programme (Integrated Secondary Technical School in Most-Velebudice)

France

- Student exchange scheme (Secondary Technical School in Ostrava)
- Support of higher professional studies in the field of international trade (Higher Professional School of International Trade in Jablonec nad Nisou)

Germany

- Seminar on professional education (VUOS)
- Continuing education for staff in commerce (the Czech-German Chamber of Industry and Commerce)
- Study visits focusing on apprenticeship training legislation (Ministry of Economy)
- Support for further education in construction (Labour Office Most and Integrated Secondary Technical School in Most-Velebudice)
- Establishment of a vocational training centre for automobile technology (Vocational Training Centre in Kyjov)
- Preparation of teaching material for business management training (Integrated Secondary School in Plzen)
- Cooperation with European business schools (European Business School, Prague)
- Training in gardening (Secondary School for Gardeners, Ostrava)
- Study visits concerning teaching methods in selected courses (Apprentice Training Administration in Prague)
- Introduction in further education for banking professions and commercial assistants (Czech-German Chamber of Trade and Industry)

Italy

- Support for training in business, marketing and management, construction and catering (Secondary Technical School, Prague 5)

The Netherlands

- Vocational training in of telecommunications (Secondary Vocational School in Telecommunications, Brno)
- Training Innovations in Electronics (Vocational Training Centre for Technology in Kromeriz)
- Information Technology training and re-training (Ministry of Economy)
- Quality control in higher professional studies (Association of Higher Professional Schools)
- Continuing education for health care personnel (Institute for Continuing Education of Health Care Professionals, Brno)

United Kingdom

- Development support for restorers' school (Restorer and Conservationist Training School, Litomysl)

This list contains only registered projects. Information on procedures and criteria for registration is not available.

•

National Observatories Addresses

Central and Eastern Europe

Albania

Mr Kastriot Sulka
Team Leader of National Observatory and Director of Host Institute

INSTITUTE OF LABOUR & SOCIAL AFFAIRS
Rr. Kavajes
ALB Tirana

Tel. 355 42 37966
Fax. 355 42 27942

Bulgaria

Dr Tzako Pantaleev
Team Leader of National Observatory

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY
Graf Ignatiev str. 15, floor 4
BG 1000 Sofia

Tel. 359 2 809203
Fax. 359 2 9818146

e-mail: 0516@main.infotel.bg

Ms Magdalena Ivanova
PMU Director

Czech Republic

Ms Olga Ilyina
Team Leader of National Observatory

NATIONAL TRAINING FUND NVF
Vaclavske Namesti 43
CZ 110 00 Praha 1

Tel. 420 2 24 22 87 32
Fax. 420 2 24 21 44 75

e-mail: oli@observatory.nvf.cz

Ms Miroslava Kopicová
Director of Host Institute

Estonia

Ms Tiina Annus
Team Leader of National Observatory

NATIONAL OBSERVATORY ESTONIA
Sakala 23
EE 0001 Tallinn

Tel. 372 2682770
Fax. 372 2682770

e-mail: katrin@tallinn.astronet.ee

Mrs Lea Orro
PMU Director

Former Yugoslav Republic of Macedonia

Mr Robert Dimitrovski
Team Leader of National Observatory

CENTRE FOR VOCATIONAL EDUCATION, TRAINING AND DEVELOPMENT
Partizanska str.
FYR Bitola

Tel. 389 97 224090
Fax. 389 97 224050

Mr Konstantin Petkovski
Director of Centre

Hungary

Dr István Simonics
Team Leader of National Observatory

NIVE, NATIONAL INSTITUTE FOR VOCATIONAL TRAINING
Berzsenyi D. u. 6
H 1087 Budapest

Tel. 36 1 2101065
Fax. 36 1 3339361

e-mail: isimon@nive.hu

Prof Antal Jekkel
Director General of Host Institute

Lithuania

Mrs Romualda Vilimiene
Team Leader of National Observatory

METHODICAL CENTRE FOR VET
Gelezinio Vilko g. 12
LT 2600 Vilnius

Tel. 370 2 250185
Fax. 370 2 250183

e-mail: pmit@pmmc.elnet.lt

Dr Vincentas Dienys
Director of Methodical Centre

Latvia

Dr Andrejs Rauhvargers
Team Leader of National Observatory and Director of Academic Information Centre

ACADEMIC INFORMATION CENTRE
Valnu iela 2
LV 1098 Riga

Tel. 371 7 225 155
Fax. 371 7 221006

e-mail: enic@izm.gov.lv

Poland

Mr Tadeusz Kozek
Team Leader of National Observatory and Director of Host Organisation

BKKK
79 Koszykowa
PL 02 008 Warszawa

Tel. 48 22 6253937
Fax. 48 22 6252805

e-mail: tadeuszk@cofund.org.pl

Romania

Dr Cesar Birzea
Team Leader of National Observatory and Director of Host Institute

INSTITUTE FOR EDUCATIONAL SCIENCES
37 Stirbei voda, str. 1
RO 70732 Bucuresti

Tel. 40 1 6136491
Fax. 40 1 3121447

e-mail: ise@acc.usis.ro

Slovak Republic

Mr Ivan Stankovsky
Director of Host Institute

STATE INSTITUTE OF VOCATIONAL EDUCATION AND TRAINING (SIOV)
Bellova 54/A
SQ 83101 Bratislava

Tel. 421 7 376774
Fax. 421 7 376774

Slovenia

Ms Martina Trbanc
Team Leader of National Observatory

CENTRE FOR VOCATIONAL EDUCATION AND TRAINING
Kavciceva 66
SLO 1000 Ljubljana

Tel. 386 61 448119
Fax. 386 61 448356

e-mail: observatorij@infosol.mss.edus.si

Mr Vladimir Tkalec
Director of Centre for Vocational Education

National Observatories Addresses

New Independent States and Mongolia

Azerbaijan

Mr Yashar Gamzayev
Mr Ali-Aga Ismailov
National Observatory

Ministry of Labour and Social Protection of Population
Government House
AZB 370016 Baku

Tel. 994 12 648047 (Mr Ismailov)
Fax. 994 12 939472 (Mr Gamzayev)

Belarus

Mr Edward Kalitsky, Team leader
Ms Olga Koljada, Assistant
National Observatory

Karl Liebknecht Str. 32
BR 220004 Minsk

Tel. 375 172 207446 (Mr Kalitsky)
Tel. 375 172 201915 (Ms Koljada)
Fax. 375 172 200992/209952

Georgia

Mr Kote Glonti
Mrs Eteri Gvineria
National Observatory

c/o EC Tacis Coordinating Unit
State Committee for Science and Technology
12 Chanturia Street
GEO 380004 Tbilisi

Tel. 995 32 220241 (Ms Gvineria)

e-mail Kote@ns.global-erty.net

Kazakhstan

Mrs Shajzada Tazbulatova, Team leader
Ms Aigul Khasenova, Assistant
National Observatory

Prospekt Abaya 107A, Apt. 12
KAZ 480008 Almaty

Tel. 7 3272 643696 (Ms Tazbulatova)
Tel. 7 3272 398127 (Ms Khasenova)
Fax. 7 3272 532525

e-mail shaizada@kaznet.kz

Kyrgyzstan

Ms Anar Beishembaieva, Team Leader
Ms Zulfia Abdullaeva, Assistant
Ms Damira Sydykova, Assistant
National Observatory

White House
KYR 720003 Bishkek

Tel. 996 3312 222867
Fax. 996 3312 218627

e-mail. atd@prez.bishkek.su
e-mail. atds@rhl.bishkek.su

Moldova

Mr Victor Pitei
Mr Vasile Costea

Piata Marii Adunari Nationale 1
MOL 277033 Chisinau

Tel. 373 2 228164 (Mr Pitei)
Fax. 373 2 232472 (Mr Pitei)
Fax. 373 2 22 85 23 (Mr Costea)

Mongolia

Mr Bayanjargal Sugar, Team Leader
Mrs Duguer Bujinlkham, Assistant
National Observatory

c/o Mr Bat Ederne, State Secretary
Government Building III
MNG Ulaanbaatar 11

Tel. 976 1 320130
Fax. 976 1 323158

e-mail. onon@magicnet.mn
www. http://www.etf.it/no.mn/

Russian Federation

Dr Olga Oleinikova, Team Leader
Mrs Anna Isaieva, Assistant
National Observatory

Ministry of General and Vocational Education
Ulitsa Lyusinovskaya 51
RF 113833 Moscow

Tel. 7 095 1575266
Fax. 7 095 1575266 (DrOleinikova)
Fax. 7 095 3712423 (Mrs Isaieva)

Russian Federation

Mr Dmitri Liubich, Team Leader
Mr Sergei Ivanov, Expert
Regional Observatory

Centre for Education and Methodology
Ulitsa Mirgorotskaya 16/5
RF 198000 St Petersburg

Tel. 7 812 2770733 (Mr Liubich)
Tel. 7 812 528 75 57 (Mr Ivanov)
Fax. 7 812 2775247

e-mail. liubich@place.spb.ru
e-mail. emicent@infopro.spb.su (Mr Ivanov)

Tajikistan

Mr Farukh Zaripov
Mr Rustam Zioyev
National Observatory

Ministry of Education c/o EC Tacis Coordinating Unit
Prospekt Rudaki 44-46
TAD 734025 Dushanbe

Tel. 7 3772 212609
Fax. 7 3772 510100

e-mail farukh@td.silk.org
e-mail zioev@td.silk.org

Turkmenistan

Mr Nursakhat Bayramov
Mr Nourmukhammed Chariyev
National Observatory

Gorogly Street 2
TME 744000 Ashgabat

Tel. 993 12 351049
Fax. 993 12 398811

Ukraine

Dr Valery Bykov, Team Leader
Mrs Elena Duchonenko, Assistant
National Observatory

Artema Str. 52-A
UKR 254053 Kiev

Tel. 380 44 2447198/2113774
Fax. 380 44 2132390

e-mail nou@niiit.kiev.ua

Uzbekistan

Mr Shukrat Abdullaev, Team Leader
National Observatory

c/o Mr Mirzakhid Sultanov, Deputy Director
Tacis Co-ordinating Unit, Uzbekistan
Tarasa Shevchenko St. 4
UZB 700029 Tashkent

Tel. 7 3712 394018
Fax. 7 3712 360652

e-mail taciscu@cutacis.bec.com.uz

European Training Foundation

Vocational Education and Training Reform in the Czech Republic

Luxembourg: Office for Official Publications of the European Communities

1996 – 36 pp. – 21.0 x 29.7 cm

ISBN 92-9157-131-8